

# September 3, 2014

# Steve Gabel

Area Specialized Agent, Agriculture-Aquaculture  
(Area Aquaculture Agent)  
NE Extension District

## North Carolina Cooperative Extension Service Districts



**NORTH CENTRAL**  
Jim Cowden 828.687.0570

County	Phone	
Alamance	336.570.6740	Randolph 336.318.6000
Alleghany	336.372.5597	Rockingham 336.342.8230
Ashe	336.846.5850	Stokes 336.593.8179
Caswell	336.694.4158	Surry 336.401.8025
Chatham	919.542.8202	Wake 252.438.8188
Davidson	336.242.2080	Valance 336.651.7331
Davie	336.753.6100	Yadkin 336.679.2061
Durham	919.560.0525	
Forsyth	336.703.2850	
Granville	919.603.1350	
Guilford	336.375.5876	
Orange	919.245.2050	
Person	336.599.1195	



**WEST**  
Dan Smith 828.687.0570

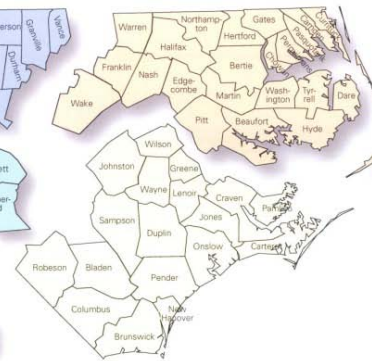
County	Phone	
Avery	828.733.8270	Swain 828.488.3848
Buncombe	828.255.5522	Transylvania 828.884.3109
Caldwell	828.251.6600	Watauga 828.264.3061
Caldwell	828.757.1290	Yancey 828.682.6166
Cherokee	828.837.2917	
Clay	828.389.6305	
Cleveland	704.482.4365	
Eastern Band,		<b>SOUTH CENTRAL</b>
Cherokee Indians,	828.554.6931	<b>Clinton McRae</b>
Graham	828.470.7979	<b>County</b>
Haywood	828.456.3575	Alexander
Henderson	828.697.4891	Anson
Jackson	828.586.4009	Cabarrus
Macon	828.349.2046	Catawba
Madison	828.649.2411	Cumberland
McDowell	828.652.7874	Gaston
Mitchell	828.698.4911	Harnett
Polk	828.894.8182	Hoke
Rutherford	828.287.6011	Iredell

**SOUTH CENTRAL**  
Clinton McRae 919.515.8433

County	Phone		
Alexander	828.632.4451	Lincoln	704.736.8452
Anson	704.694.2915	Mecklenburg	704.336.2082
Cabarrus	704.920.3310	Montgomery	910.576.6011
Catawba	828.465.8240	Moore	910.947.3188
Cumberland	910.321.6860	Richmond	910.997.8255
Gaston	704.922.0301	Rowan	704.216.8970
Harnett	910.893.7530	Scotland	910.277.2422
Hoke	910.875.3461	Stanly	704.983.3987
Iredell	704.873.0507	Union	704.283.3801
Lee	919.775.5624		

**NORTHEAST**  
Travis Burke 919.515.8436

County	Phone				
Beaufort	252 946 0111	Franklin	919 496 3344	Northampton	252 534 2831
Bertie	252 734 5317	Franklin	252 357 1400	Pasquotank	252 338 3954
Camden	252 331 7630	Halifax	252 583 5161	Perquimans	252 426 4258
Chowan	252 482 6585	Hertford	252 358 7822	Pitt	252 902 1700
Currituck	252 232 2261	Hyde	252 926 4688	Tyrrell	252 796 1581
Dare	252 473 4290	Martin	252 789 4370	Wake	919 250 1100
Edgemore	252 641 7815	Nash	252 459 9810	Warren	252 257 3640
				Washington	252 293 2163



**SOUTHEAST**  
Greg Hoover 919.515.8437

County	Phone	
Bladen	910.862.4591	Lenoir 252.527.2191
Brunswick	910.253.2610	New Hanover 910.798.7660
Cartieret	252.222.6352	Onslow 910.455.5873
Columbus	910.640.6605	Pamlico 252.745.4121
Craven	252.633.1477	Pender 910.259.1235
Duplin	910.296.2143	Robeson 910.671.3276
Greene	252.747.5831	Sampson 910.592.7161
Johnston	919.989.5380	Wayne 919.731.1520
Jones	252.448.9621	Wilson 252.237.0111

# Canadian Food Inspection Agency (CFIA) Update

- December 10, 2011 CFIA rules go into effect requiring Aquatic Animal Health certification (Zoosanitary Certificate)
- 1 year for transition (enforcement Dec. 10, 2012)
- Schedule III Aquatic Animals (405 species, finfish, molluscs, crustaceans – live, whole - boxed and iced)
- Health Certificate (valid for 30 days) documenting commodity is not infected with disease of concern
- Visual inspection within 72 hrs. (no clinical signs of disease or parasites)
- Must have a valid relationship with a USDA accredited vet
- Export Certificate – NOAA-US Dept. of Commerce (\$100 +)?

# USDA APHIS Registration Program for U.S. Exporters of live and Dead Finfish and Crustacean Commodities intended for Food Service, Retail Use and Further Processing for Human Consumption Regulated under Canada's Schedule III

## USDA APHIS Registration Program for U.S. Exporters of Live and Dead Finfish and Crustacean Commodities intended for Food Service, Retail Use and Further Processing for Human Consumption Regulated under Canada's Schedule III

### 1 Purpose

To ensure that all USDA APHIS registered facilities that export susceptible species of aquatic animals (<http://www.inspection.gc.ca/animals/aquatic-animals/diseases/susceptible-species/eng/1327162574928/1327162766981>) to Canada have mitigations in place to address the risks of disease introduction that are listed as conditions on the *Statement of the Exporter* (see Annex I) which then allows Canada to waive zoosanitary export health certification.

### 2 Initial Pre-Export Inspection by a USDA APHIS Veterinary Medical Officer

The exporting company or production facility must undergo and pass an initial pre-export inspection by a USDA APHIS Veterinary Medical Officer to verify compliance with Canada's export requirements on the *Statement of the Exporter* (see Annex I and Annex II). All criteria used in the Registration Program Inspection Checklist (see Annex III) must be reviewed and certified as acceptable by APHIS personnel.

#### 2.1 Components of the Inspection

The following activities are conducted during an APHIS Veterinary Medical Officer inspection:

##### 2.1.1 Examination by visual inspection of the aquatic animals to verify that the population(s) at the registered facility(ies) is/are free from clinical signs of diseases of concern to Canada.

- Inspection and verification of the export procedures and assessment of facility personnel knowledge and ability to implement these procedures to ensure that the aquatic animal population(s) is/are free from clinical signs of diseases of concern to Canada.

##### 2.1.2 Animal Management Requirements:

The following three requirements must be verified for **ALL SHIPMENTS** for **LIVE AND/OR DEAD** aquatic animals for **FOOD SERVICE, RETAIL USE and FURTHER PROCESSING** in Canada.

The OIE listed disease(s) are compulsorily notifiable to the competent authority in the exporting country and/or reports of suspicion of non-OIE diseases of concern are investigated by the competent (USDA APHIS or state) authority.

- Verification that the registered facility has a standard operating procedure (SOP) and that facility personnel know the procedures for the mandatory notification to USDA APHIS and state authorities of OIE notifiable diseases of aquatic animals, as well as of suspected clinical signs of disease and/or unusual morbidity or mortality.
- "Diseases of concern" refers to Canada's list of susceptible species with the associated diseases of concern as per the website:  
<http://www.inspection.gc.ca/animals/aquatic-animals/diseases/susceptible-species/eng/1327162574928/1327162766981>

The aquatic animals to be exported are not under any restriction by the exporting country's competent authority or intended for destruction of slaughter for disease control purposes.

### Annex III:

#### Registration Program Inspection Checklist for facilities exporting live and/or dead aquatic animals to Canada for food service, retail use and/or further processing for human consumption

##### Aquatic Facility

Name of the Exporter Company/Production Facility: \_\_\_\_\_

Address of the Exporter Company/Production Facility: \_\_\_\_\_

Phone of the Exporter Company/Production Facility: \_\_\_\_\_

Email address of the Exporter Company/Production Facility: \_\_\_\_\_

Date of USDA inspection: \_\_\_\_\_

For food service and/or retail use:

- ☐ Standard operating procedure (SOP) for mandatory notification of suspected clinical signs of disease and unusual morbidity or mortality.
- ☐ SOP for communication with USDA APHIS to ensure aquatic animal population(s) to be exported to Canada is/are not under disease control restrictions, communications are recorded and facility personnel staff are notified of disease control restrictions.
- ☐ SOP for transport water and/or ice.
- ☐ SOP for identification of visible ectoparasites and intermediate hosts. (Not required if only shipping dead animals)
- ☐ SOP for verification that only aquatic animals on import permit are included in the shipment. (Not required if only shipping dead animals)
- ☐ SOP for packaging and shipping procedures.
- ☐ SOP for labelling packages.

In addition to verification of the above requirements, for further processing the following two requirements must be verified:

- ☐ SOP for identification of clinical signs of diseases within 96 hours prior to export or 96 hours post-harvest/slaughter prior to freezing and/or processing.
- ☐ Morbidity and mortality records for cultured animals and catch records for wild caught animals.

# Exporting Fish to Canada

## Standard Operating Procedures (SOP)

- Comment on OIE reportable diseases and diseases of concern for export of HSB to Canada:
  - viral hemorrhagic septicemia
  - red sea bream iridovirus
  - infectious pancreatic necrosis
- Address issue of water for live fish transport as well as water source for iced fish (potable, commercial source, etc.)
- Need to address cleaning and disinfection of shipping containers prior to loading for live fish and or use of new boxes for ice packed fish
- Packaging of iced fish is done in a manner that prevents exchange of water or animals during transport or storage

# **Exporting Fish to Canada Standard Operating Procedures (SOP)**

**Standard Operating Procedures (SOP) for the harvest  
and sale of fish on XYZ Fish Farm**

**SOP for Potential Disease Outbreaks Associated with  
Export of Hybrid Striped Bass to Canada for Food Service  
or Retail Use**

# General NPDES Permit

## (General Permit NCG530000)

- Water quality complaints in 2004
- SOC issued December 15, 2008
- SOC rescinded August 1, 2013
- August 1, 2014, BMP's due to DENR for completion of all requirements for NPDES General Permit NCG530000
- Expires July 31, 2017

# NPDES Permits for Catfish Farms?

- NC DENR WR representatives tour farms – farm BMP review for NPDES Permit
- Tour very soon after Duke Energy coal ash spill – US EPA not warm and fuzzy
- Off-the-record discussion – Do NC catfish producers need a NPDES Permit?

# NPDES Permits for Catfish Farms?

NC NPDES Requirement: A concentrated aquatic animal production (CAAP) facility subject to the NPDES program is defined, but not limited to, a hatchery, fish farm, pond, raceway, net pen, submerged cage system, recirculating system, flow-through system, or similarly structured facility that meet Cold- or Warm-Water definitions and criteria.

Warm-Water species facilities that meet or exceed both of the following:

- 1) produce a minimum 100,000 lbs harvest-weight of aquatic animals per year and
- 2) discharge more than 30 days per year.

Effluent, due to rainfall, leaves the catfish ponds for more than 30 days per year.



# NPDES Permits for Catfish Farms?

US EPA Criteria for determining a Concentrated Aquatic Animal Production Facility: A hatchery, fish farm, or other facility is a concentrated aquatic animal production facility for purpose of Part 122.24 if it contains, grows, or holds aquatic animals in either of the following categories:

- (a) Cold water . . . .
- (b) Warm water fish species or other warm water aquatic animals in ponds, raceways, or other similar structures which discharge at least 30 days per year, but does not include:
  - (1) **Closed ponds which discharge only during periods of excess runoff**; or
  - (2) Facilities which produce less than 100,000 lbs. of aquatic animals per year

NC DENR decision – since catfish farms rarely drain their ponds, the drain pipes are essentially overflow structures and as such, catfish ponds do not need to have NPDES permits

# NPDES Permits for Other Farms?

“Other types of facilities also not covered by today’s action include closed pond systems (most of which do not meet the regulatory definition of a CAAP facility), molluscan shellfish operations, including nurseries, **crawfish production**, alligator production, and aquaria and net pens rearing native species released after a growing period of no longer than 4 months to supplement commercial and sports fisheries.”

# Brush Fires

- Aquaponics – hobby vs. commercial scale
- Water Quality – toxic Euglena
- Aquatic Weeds – Chara, Proliferating Spike Rush, Duckweed, filamentous algae, blue-green algae
- Tanglewood Condos/Apartments – midges, mosquitos
- YouTube Video – Ceramic oxygen diffuser repair